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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/766,740

01/26/2004

John P. Jackam

025000-00200

2847

54487

7590

12/30/2008

JONES & SMITH, LLP

2777 ALLEN PARKWAY, SUITE 800

HOUSTON, TX 77019-2141

EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

12/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/766,740	Applicant(s) JACKAM ET AL.	
	Examiner Cephia D. Toomer	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/8/08 & 5/6/08.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 77-81, 83-89, 92, 94, 96, 97, 99, 100, 104, 106, 107, 109, 110, 114, 119, 122-124, 129-131, 137, 139-159, 163, 168-170, 172, 174, 176-178, 180, 190, 192, 193, 196-226 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) all pending claims is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/6/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the amendment filed May 6, 2008 and the remarks filed September 8, 2008.

The previous rejections are withdrawn in view of the amendment to the claims and Applicant's arguments.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 159, 163, 168, 201 and their dependents are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 9924387.

WO teaches a process for synthesizing high purity lower alkyl esters using water-washing and fractional distillation. The esters have low levels of glycerin and glycerides and an acid value of no greater than about 1.0 (see abstract). The fatty acids of the esters have at least about 16 carbon atoms (see page 4, third paragraph). In order to obtain low acid value, a basic catalyst is used to form the lower alkyl esters and to maintain the pH of the ester synthesis process above 7. The reaction mixture that contains the fatty acid esters is separated into a lower layer rich in glycerol and an upper layer rich in lower fatty acid ester. Esters made according to the invention have a glycerol level of less than about 200 ppm (see page 8, paragraphs 2 and 3). The

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reaction temperature is from about 20 C to about 160 C (68 F-320 F) at pressures of atmospheric to about 150 psig (see page 7, third paragraph). Fractional distillation is preferred but batch or continuous may be used. Distillation can be performed at temperatures from 163 C-277 C (325-530 F). (see page 9, last paragraph; page 10; paragraphs 1-3).

WO does not specifically teach that the fatty acid esters are recovered as biodiesel. However, it would appear that there would be a reasonable expectations of producing biodiesel since WO prepares the fatty acid esters using similar processes.

3. Claims 169, 170 and their dependents are rejected under 35 U.S.C. 103(a) as being unpatentable over Turck (US 20020156305).

4. Turck teaches a method for producing fatty acid esters of monovalent alkyl alcohols by treating fatty acid containing material with a base material of glycerin and a catalyst. The final ester products are used as diesel fuels (see abstract). The glycerides formed from the glycerin/fatty acid starting material is subjected to transesterification to form fatty acid esters suitable for use as diesel fuel (see para 0013). The alcohol used in the transesterification step is one of 1-10 carbon atoms, but preferably methanol (see paragraphs 0034 and 0036). After transesterification a glycerin phase and an ester phase are separated (see paragraphs 57-62).

5. Turck does not specifically teach the acid number and glycerin number of the ester. However, he sued the fatty acid esters of his invention as diesel fuel and therefore, it would be reasonable to expect that the fatty acid esters possess the claimed values.

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6. Turck does not specifically teach adjusting the pH of the glycerin. However, he uses catalysts in the process of his invention and one skilled in the art would expect that these compounds would help in maintaining the pH of the glycerin at the desired pH.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cephia D. Toomer/
Primary Examiner
Art Unit 1797

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